

PROJECTION VIEWING EXPLAINED (cont.)

screen will have an impression of compressed or reduced stereo depth and those further away than the projector will experience an impression of increasingly exaggerated or elongated depth as their distance from the screen increases.

REFERENCE might be made to another effect noticed in the viewing of projected stereo pictures. A little consideration of the diagrams will show the reason for this effect. When the observer moves his head sideways while looking at the screen, the scene or object also generally appears to move sideways. This is because the lines of sight from the two eyes pivot about the fixed image points R and L on the screen. However, for case A there would be no apparent sideways motion, since point P is fixed at the screen surface by the two image points R and L, which coincide at this surface. In cases B and F, the point P in front of the screen surface would appear to move in the same direction as the observer's eyes - that is, if the eyes were moved sideways to the right, the point P would appear to move to the right also. In cases C, E and G, the point P behind the screen would appear to move in a direction opposite to the motion of the observer's eyes - that is, if the eyes were moved to the right, the point P would appear to sweep through space toward the left. Remember that the lines of sight pass through the fixed points L and R and pivot around these points. It is evident from the geometry of the situation that the apparent motion of point P depends upon how much the observer moves his eyes sideways and upon the location of point P with respect to the observer. Using the particular conditions of the illustration given in case F, point P referred to a fixed point on the screen would appear to move sideways just half the distance that the observer moves his head.

THIS COMPLETES the considerations of Part I of this write-up, and the writer would appreciate receiving any corrections, comments, suggestions and questions which you may have.

HONORS TO ALL

LEE HON, Chairman of the Competitions and Exhibitions Committee, made his awards, both national and local, to members of MSC who were winners in the National Club Stereo Competition, and in MSC's monthly competitions.

THIS PRESENTATION was climaxed by the unexpected trophy donated by PSA to the Metropolitan Stereo Club as winner of the May round of the National Club Stereo Competition.

FRANK PORTER suggested an excellent idea for continuing use of the trophy at our meetings. He will make a closeup slide of the trophy, and this slide will be the introduction of all MSC slide presentations.

2500 EMDE STEREO AWARD CLOSING SEPTEMBER 4TH

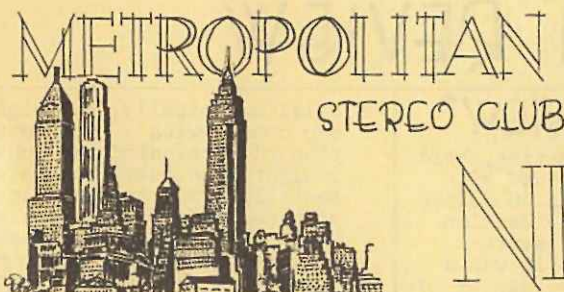
THIS IS the month when the EMDE STEREO AWARD contest entries will be received by JEAN BROOKS, Sec'y of the PSA Committee, for judging in September. Entries are already beginning to arrive. You still have time to prepare your sequence story and get it in by September 4th.

SALON CLOSING DATES

PSA (Denver) August 27, 1956
Pittsburgh, Sept. 4, 1956
Stockton-on-Tees, Sept. 14, 1956
Mexico, Sept. 29, 1956
Lighthouse (Chicago), Nov. 10, 1956
For Further Information:
Call Lee Hon

MSC NEWS TO MEMBERS

STARTING WITH the September issue, the NEWS will be mailed only to members, associates, camera clubs and the usual press and publicity outlets. If you know of someone who will be interested in MSC, notify us and 2 issues of the NEWS will be sent gratis. Others who would like to continue to receive the NEWS may do so by becoming Associate Members, dues \$5.00 per year.



VOL I

AUGUST 1956

NO 9

OUTDOOR MEETING SET FOR SAT. AUG. 11TH

BY POPULAR vote MSC elected to hold the August meeting out-of-doors, and during the afternoon of the second Saturday of the month. The selected location is Philipse Castle, North Tarrytown, New York, on the banks of the Pocantico River, at the site of Washington Irving's Headless Horseman Bridge.

Here, completely restored, is the original manor house of Frederick Philipse, lord master in his day of all the land from Spuyten Dyvil to the Croton River, and from the Hudson to the Bronx River. It has all been brought to life again and is under the care of Dr. Harold Dean Cater.

MSCers WILL be given a double-barrelled treat in tours of the charming site and a club meeting with "in the field" demonstrations of outdoor photography. And, as an extra, we'll have a picnic!

THE BUILDINGS - manor house, slave quarters, barn and mill, are all fitted with the furniture and tools of the time of their former glory. Of special interest to the distaff side is the loom room, now in the mill, where each step in making "linsey-woolsey" and linsey, and woolsey, is in active operation, to the sounds of whirring spinning wheels and clicking shuttles of the looms.

NOT FAR from the millpond that powers the waterwheel again turning the millstones is a lovely and spacious picnic grove - the place of our meeting.

(Cont. P. 4)

PROJECTION VIEWING EXPLAINED

SOME THOUGHTS ON THE TECHNICAL PRINCIPLES OF STEREO

Part I

by

PAUL S. DARNELL

IN THE presentation on "Flowers" which was given as a part of the "Points of View" program at the July MSC meeting there were discussed certain aspects of stereo principles pertaining to the viewing of projected stereograms. Slides were used to illustrate the points considered, but space does not permit their reproduction here. It is the purpose of Part I of this article to record some of the ideas on "Stereo Viewing". Other factors mentioned as contributing to projection viewing were: "Center of Perspective", "Depth of Field" and "Camera Lens Separation in Close-up Stereography". These will be dealt with here at a later date.

ALTHOUGH IT MAY SEEM a far cry from what takes place when we look at projected stereo photographs to close-up studies of flowers, there is a connection. A better understanding of the "mechanics of viewing" will disclose ways of reducing or eliminating entirely the distortion so often evident in close-up stereo pictures projected on the screen.

AS YOU ALL know, it is the objective of the polarized light system of projection and viewing

(Cont. P.6)

"POINTS OF VIEW"

AT THE MSC July meeting, held on a humid night interlaced with thunderstorms, more than 60 MSCers turned out to see Ronnie Jenkins unveil his mid-summer feature "Points of View". That it was a resounding success there can be no question. That it will be repeated with the points of view of others is a foregone conclusion.

"POINTS OF VIEW" sought to find out why certain stereo workers manage consistently to make more interesting pictures. Five MSCers were selected for assigned topics and were requested to bring back in pictures the step-by-step story of how they finally arrived at their selected "Point of View".

THE CAST included Lisa Obert on "Portraits and Activities", Edna Holly on "Scenics", Lee Mon on "Structures", Paul Darnell on "Flowers" and Ronnie Jenkins on "Boats".

WHAT DEVELOPED was a revealing experience of value to us all. It is hard to report visual experiences to that they mean something to those who have not been present. Yet, a little thinking about each "Point of View" discussed briefly here can start you off toward getting the best possible pictures, whatever your subject.

LISA CAN always be expected to allow her enthusiasm to transcend any assignment. Therefore, "Portraits and Activities" became "Active Portraits". For her central figure Lisa selected a charming little miss, Jo-Ann, whose everyday comings and goings within the sphere of the little world she knew at the age of 19 months presented a challenge to Lisa's alert and understanding camera eyes. Lisa knows no short-cut to making a good documentary that excepts hard work and making herself a physical part of her story. Does anyone else? So, for one long and glorious day, Lisa followed her fast-moving little subject on her uninhibited way through life .. using three stereo cameras. Twenty or twenty-five pictures were shown,

kaleidoscopically, one right after the other, with a background narration that revealed the sensitive insight Lisa seems to possess, especially about people. Any one picture, Lisa feels, is a single facet of a subject, a flash point of view that can only record and bring back that split fraction of a second in time within the life of the individual. To draw a more complete portrait many such facets must be shown, each of which contributes to the whole. These we saw as the drama of a day in Jo-Ann's life unfolded, ending, as you might expect, in Jo-Ann's favorite posture for sleeping. While the sequence ended with that appealing sleeping child, the summation - Lisa's final "Point of View" was Jo-Ann in a moment of "doing" not just "being". Jo-Ann is an active child, as we saw, and a studied portrait just would not express her. Lisa's choice for the facet which told the most of Jo-Ann, was a picture of Jo-Ann, rather than a picture of a child.

ALL OF us who saw this series of pictures are somehow richer for this insight into the life of Jo-Ann, and especially for another opportunity to witness the creative skill and interpretive camera of Lisa Obert. It is people like Lisa who promise to advance stereo beyond sterile photography into the newer, faster-paced moods of our everchanging day.

LEE MON is making a career of looking at the George Washington Bridge and photographing it from every conceivable angle. He has approached it from all the normal aspects, and, unsatisfied with these points of view, he somehow obtained not only a fishes' eye view of the bridge, but also an angel's eye perspective (with the assistance of the Port of New York Authority). Opening his story with a mundane long shot of the bridge, his following pictures revealed a planned approach to his objective, a portrait of the structure that would contain its personality. This wonderful bridge has many and varying moods, and Lee feels them as others do, and seeks them out.

PROJECTION VIEWING EXPLAINED

(Cont. from P. 6)

lines of sight from the two eyes of observer at A converge and cross at the surface of the screen at point P and so the particular point in the scene represented by these two image points appears to be at the screen surface (and at the stereo window). That is, the point in the scene, or object point, appears to be located in the image space at the point P where the line of sight from the right eye and the line of sight from the left eye intersect.

CASE B - In this instance, the photographing, mounting and projection conditions are such that the lines of sight from the two eyes at B converge and cross at point P before they reach the two image points R and L on the screen. Consequently this point in the scene, or object point, appears to be located in front of the screen (and stereo window).

CASE C - Here the photography, mounting and projection conditions are such that the lines of sight from the two eyes at C converge and cross at point P after they pass through the two image points R and L on the screen. For this condition, the point in the scene, or object point, appears to be located behind the screen (and stereo window).

CASE E - This represents the condition where the point in the scene, or object point, is at a great distance (stereo infinity) so that the two image points R and L on the screen are the same distance apart as the distance between the pupils of the eyes - that is, around 62 to 65 millimeters. Under these conditions, the lines of sight from the two eyes at E through the two image points R and L are either parallel or for all practical purposes have no convergence, and the point in the scene appears to be at infinity. If the separation of the two image points R and L exceeds the interpupillary distance, then the eyes must "toe out", with consequent discomfort or impossibility of image fusion in viewing, depending upon the amount of divergence.

CASE F - This bears a relation to Case B. Perhaps you have observed that when you see a part of a

scene or object which appears to jut out of the screen toward you, and you walk toward the screen to reach the object, let us say, the object appears to keep moving away from you and to recede into the screen (stereo window). In Case F the separation between image points R and L is about the same as in Case B, but the observer is shown at half the viewing distance (D instead of 2D). It is clearly evident from the diagram that the degree of convergence of the lines of sight will be greater and that these lines of sight will cross at point P closer to the screen than in case B. For illustration, if the separation of image points R and L is the same as the interpupillary spacing in the observers' eyes, point P will appear to be in space exactly halfway between the observer and the screen (stereo window). This illustration is general and so applies to both Cases A and F.

CASE G - This is related to Case C. Here image points R and L are about the same distance apart as in case C, but the observer is at a viewing distance (D) which is half of that (2D) shown in example C. Again, as in case F, it is obvious from the diagram that the degree of convergence of the lines of sight will be greater and that these lines of sight will cross at point P closer to the screen than in case C. For illustration, if the separation of the image points R and L is half the interpupillary spacing in the observer's eyes (say, around 31 to 32.5mm), point P will appear to be in space behind the screen at exactly the same distance the observer is in front of the screen (stereo window). This is also a general illustration and applies to both cases C and G.

FROM THE standpoint of apparent stereo depth of the scene or object resulting from the two images of the stereo pair on the screen, it is evident from the foregoing that the "fore and aft" appearance which the observer beholds depends (among other things) upon his distance from the screen (stereo window). If, for example, a stereo slide is prepared for proper viewing at the projector position, observers closer to the

(Continued P. 8)

PROJECTION VIEWING EXPLAINED

(Cont. from P. 1)

to permit the right eye of the observer to see only one picture of the pair taken by the camera and to permit the left eye to see only the other picture of the pair; and of course, in each instance to see the proper image.

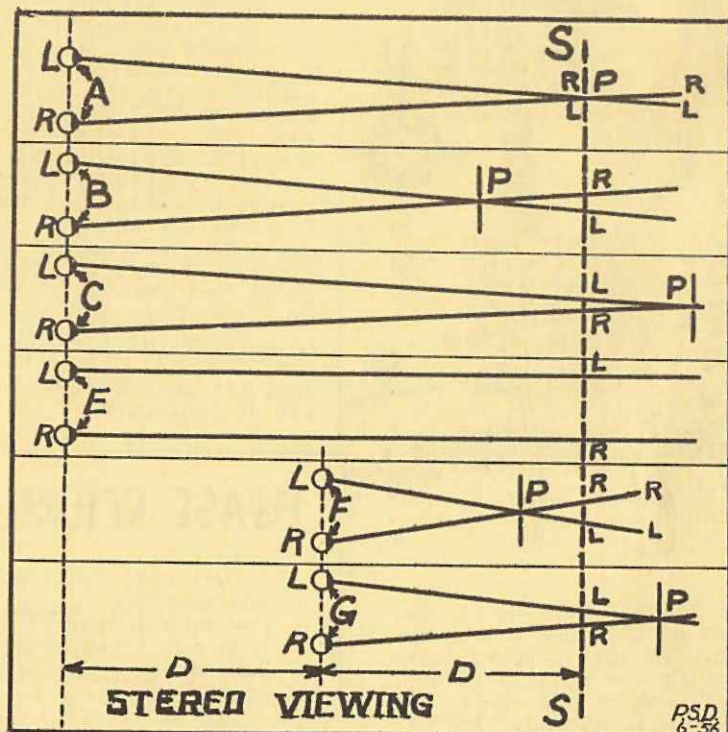
THEREFORE, when the two eyes of the observer are focused upon a particular point in the scene portrayed on the screen, the line of sight from the right eye to that point is determined by the image R of that point on the surface of the screen, which the right eye is supposed to see; and the line of sight from the left eye to that point is determined by the image L of that point on the surface of the screen, which the left eye is supposed to see.

NOW let us find out what happens when these two points R

and L on the screen assume various relations to each other, by referring to the diagram labeled "STEREO VIEWING", and considering the several examples shown.

IN THE diagram, "S-S" denotes the screen, and the observer is stationed respectively at A, B, C, etc. Throughout this discussion it will be assumed that the plane of the stereo window as established by the mounting mask and the plane of the screen are the same. When the two images of the openings in the mask are superimposed on the screen, the stereo window appears to be on the surface of the screen, and the stereo window and screen surface are said to be "coplanar".

CASE A - When the two photographs of the stereo pair are so taken, mounted and projected that the two image points R and L referred to above precisely coincide at the surface of the screen, the



POINTS OF VIEW (cont'd)

Although the physical form is always the same, Lee managed, with a discerning eye, to capture "Points of View" that contained seemingly countless different forms and shapes, as his camera roamed about the mile-long structure.

LEE FINALLY felt that he had accomplished his purpose. He climaxed his narration and presentation with a breathtaking view from the top of one of the two towers, some 400 feet above the Hudson, including the majesty and massive-ness of this graceful lacework.

WE FEEL that one day Lee's documentary of the GW Bridge could make a most interesting book, of value to any artists or photographer.

EDNA HOLLY selected a segment of a little Connecticut River as the location for her search for a "Scenic". Edna's charming narration made you feel that just any river, or any other spot would have done equally well. Her purpose was to get a picture, she had to establish a point of view. So, we felt, she quietly and purposefully, recorded with her camera her progress on one afternoon, as she sought within a 300-yard span for "a picture" .. that would satisfy her.

UPSTREAM, downstream, there's a rock in the foreground, another picture, a bend in the river, too many bushes ... on and on Edna took us through her slides, until at the close of the day, the same little creek yielded a wonderful backlit reflection shot, composed of lines, light, mood -- so delicate and unexpected it left us momentarily astonished. Could this picture have existed in this ordinary little stream? Of course it did, and Edna found it, and made it excellently. But it took patience, determination and a confidence that she would get what she wanted. She certainly did.

PAUL DARNELL, whose subject was "Flowers", provided the unchallenged highlight of the evening. An engineer by profession, Paul intended to approach his assigned

"Point of View" close-up. He found that to do this satisfactorily, he required some information he did not at that time possess. Apparently, material available to him in libraries was still unsatisfactory to his searching mind, so Paul proceeded to develop and prove his own mathematical approach to close-up stereography.

Paul presented his findings in a most enlightening paper, delivered with a dry humor and a charming personality that added to the authority and the positive way in which he came to his conclusions. Step by step, formula by formula, he showed us the hows and whys of closeup photography. He concluded with a new and original formula, unknown to any of us ... which obviously works and works well. Oh, yes, Paul reached his "Point of View" in his "Studies of Water Lilies", whose beauty spoke for Paul's idea that technique is only a tool which makes possible the expression of beauty and creation.

RONNIE JENKINS, who master-minded "Point of View", brought the program to a close with his approach to his favorite topic "Boats". Ronnie, at one time a man of the sea himself, loves ships. Whenever time permits he can be found at some waterfront, seeking them out. Weather, sky, background .. they make little difference to him. He brings his camera to bear on some line, some curve, some mood of a ship. His slides fully describe his attempts as he singled out a specified ship, docked at a pier, the patience with which he approached his subject, with four or five shots showing points of view discarded before he felt he had obtained an all-inclusive and concise statement of what he wanted to say. As you guessed, he came up with it. We were most impressed with the emotion that impelled Ronnie to close his part of "Point of View" with a prow shot of a storm-torn ocean liner against a pola-screened sky. Yes, we learned Ronnie's "Point of View" about ships, and we learned, too, a great deal more about the sensitive nature that contributes so much to his success as a stereographer.



METROPOLITAN Stereo Club NEWS is published monthly in the interests of stereo information and education, for the benefit of MSC members and their friends in stereo. It is sent to all listed stereo clubs throughout the country. We hope these clubs will send us their publications, and will feel free to make use of any information contained in MSC NEWS that will be helpful to their members. We will, of course, appreciate credit to MSC NEWS or recognition of any by-line on articles used. We believe this exchange of ideas, activities, tech data, etc., will aid program planners everywhere to increase the scope of club activities. Contributions should be addressed to JEAN AND BART BROOKS, Acting Editors, 258 Broad Avenue, Leonia, New Jersey. Windsor 4-4387. Any copy accepted is subject to whatever adaptation and revision may be necessary.

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Member

1956

METROPOLITAN STEREO CLUB PROGRAM-AUG. 11TH

SPECIAL OUTDOOR MEETING AT PHILIPSE CASTLE SAT. P.M. AT 1:00
— BRING YOUR CAMERAS —

TOUR OF PHILIPSE CASTLE — PICNIC — OUTDOOR PHOTOGRAPHY

FOR MEMBERS THEIR FAMILIES AND GUESTS ONLY

OUTDOOR MEETING AUG 11TH

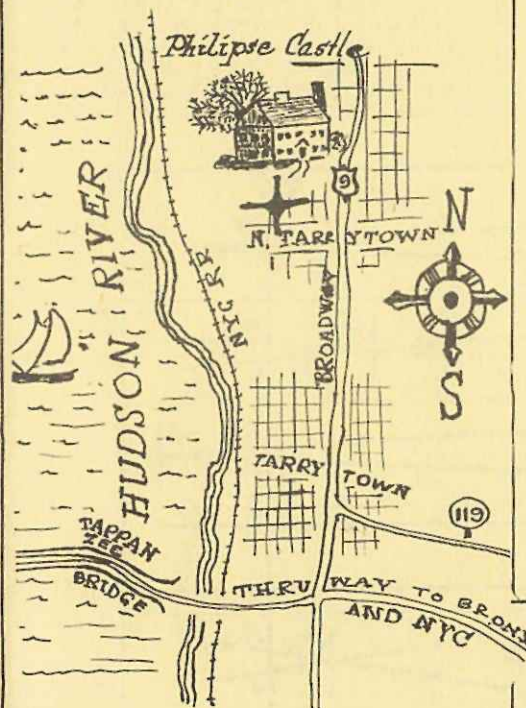
There will be photographic business as usual, demonstrations of outdoor portraiture, fill-in flash, closeup stereo of flowers, and Lou Frohman will show the supplementary lighting equipment he uses for just this type of photography, historical sites, restorations, etc.

WE HAVE, as a group, too long delayed creating an opportunity to get together under conditions where we can get to know each other better, and Saturday afternoon, Aug. 11th, we may, together, step backward for a few hours to the life of more than 200 years ago, when people had more time to know each other. MSCers who find it possible to make this meeting will return much richer in many ways.

The Society in charge of Philipse Castle is making a special concession to members of MSC and their immediate families in a reduced admission charge of 40¢ per person. Guests of club members will pay the regular admission of 75¢ each. The tours of the buildings will start promptly at one o'clock, in small groups, with assigned guides for each group. The club meeting in the grove will begin at 2:30, to wind up around 4 o'clock-ish. Also, as a special concession to MSC, you may bring a basket supper for your party - cold, of course, since fires are not permitted. There is a coke and ice cream bar tucked away in the cellar of the mill, for your convenience.

BRING YOUR cameras, of course, if you want to make pictures in these lovely settings. Our charming guides, some in Dutch costumes may be imposed upon to serve occasionally as models. Our preview of Philipse Castle has revealed a virtual Shangri-La of photographic subjects for every taste.

TRANSPORTATION for those who do not have cars, can be arranged by calling LISA OBERT, TRAFALGAR 3-1046, who will assign them to cars leaving from the GW Bridge Plaza, New York side, at 12 NOON. There will be ample transportation.



ARCHERY FT. AUG 18TH

by Lisa Obert

ONE OF our most enthusiastic field trippers, "MACE" MACIEJAK, will be in charge of the August 11th field trip, as I have a commitment on this date. Over a thousand people usually come from all over the Eastern Seaboard, in very fancy costumes, to participate in this yearly U.S.A. Archery Championship meet. Lots of foreign countries are represented, as well.

YOU WILL see the finest equipment being used, in formations which are naturals for stereoscopic exploits. On top of this "Mace" claims an "IN" with the weather gods who will provide sunny skies with beautiful clouds in the right places. (Absolutely none of the rained-out, haze-ful and blizzarded nonsense customary on my trips.) What more can you ask for?!? Oh, girls!! Naturally, they will be along too. Details about meeting time and place will be sent to you in a later mail. The shooting (Archery, that is) starts at 10 AM, Sat. Aug. 18 in Lakewood, N.J. Have fun, all of you..Sorry I can't make it.

PLEASE RETURN CARD

I (we) will (will not) attend the meeting. _____
How many in party? _____
Have own transportation _____
Can take _____ others, if requested.

(Your name)

LOU FROHMAN will be at the Gatehouse of Philipse Castle to meet you. We have been requested to notify the Society of the number of members and their guests who will attend. For that reason we are enclosing cards for your convenience and prompt RSVP.